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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/895,991  | 06/29/2001  | James W. Hofmann     | Hofmann 1-51-15-7-4 | 9330             |
| 7590  | 05/17/2005  |                      | EXAMINER            |                  |
| Theodore Naccarella<br>Synnestvedt & Lechner LLP<br>2600 Aramark Tower<br>1101 Market Street<br>Philadelphia, PA 19107-2950 |             |                      |                     | MEEK, JACOB M    |
|   |             | ART UNIT             |                     | PAPER NUMBER     |
|   |             | 2637                 |                     |                  |
| DATE MAILED: 05/17/2005   |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |                |
|------------------------------|-----------------|----------------|
| <b>Office Action Summary</b> | Application No. | Applicant(s)   |
|                              | 09/895,991      | HOFMANN ET AL. |
|                              | Examiner        | Art Unit       |
|                              | Jacob Meek      | 2637           |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 31 January 2005.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 - 10, 12 - 37 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 - 10, 12 - 37 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1)  Notice of References Cited (PTO-892)  
 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4)  Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5)  Notice of Informal Patent Application (PTO-152)  
 6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Response to Amendment***

1. Applicant's amendment filed January 31, 2005 has been entered.

### ***Specification***

2. The corrected or amended abstract was received on January 31, 2005. This abstract is accepted.

### ***Response to Arguments***

3. Applicant's arguments with respect to amended claims 1, 12, 13, 20, 21 and 31 have been considered but are moot in view of the new ground(s) of rejection.
4. Applicant's arguments with respect to 112, 1<sup>st</sup> rejection of claims 6 - 8, 17 and 18 have been withdrawn in view of amendment of claims.

### ***Claim Rejections - 35 USC § 103***

5. Claims 1 - 10, and 12 - 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lippett et al (US Patent 6,667,993).

With regard to claim 1, Lippett teaches a method with first device transmitting a bit pattern (see Figure 1, 130; figure 16A, 1600,1602; figure 3, and Table 1 where this is interpreted as equivalent) to a second device responsive to a start signal (see Figure 1, 120, and Column 4, lines 60 - 67); second device sampling for bits of bit pattern sampling times determined as a function of a delay period after start signal (see Figure 16A, 1610, and column 9, lines 20 - 40); if second device does not detect said predetermined bit pattern, increasing delay period and repeating as necessary (see Figure 16A, 1612); if second device detects bit pattern, setting the last delay period used as delay period to be used by second device for sampling data for further transmissions from first device to second device (see

Figure 16B, 1620 YES) ; second device using said last delay period for sampling further data transmissions from said first device to said second device, wherein 2<sup>nd</sup> device performs step (2) twice before proceeding to steps 3 and 4 (see Figure 16A, 1610 where this is interpreted as being inclusive of twice). Lippett is silent of the use of a delay period, but does teach the shifting of tap points. It would have been obvious to one of ordinary skill in the art at the time of invention that Lippett's tap point selection provides a variable delay function and thus equivalent functionality.

With regard to claim 2, Lippett teaches that the start signal is generated at the second device (see Figure 2, 170, 133, 131, and Column 4, line 60 – 67 where this is interpreted as equivalent functionality).

With regard to claims 3 & 4, Lippett teaches that start signal is a frame synchronization signal denoting the beginning of a frame (see figure 3, where frame synch portion interpreted as operating in conjunction w/ FERF indication to provide start signal).

With regard to claim 5, Lippett teaches start signal is transmitted on a first signal line (see Figure 1, 115), said predetermined pattern and all further data is transmitted on second signal lines (see Figure 1, 116). Lippett is silent on the use of an independent clock line, Lippett teaches that byte clock and frame pulse are aligned to master (see column 1, line 67 – column 2, line 6). It would have been obvious to one of ordinary skill in the art at the time of invention that a synchronization means would need to be provided to allow communications to be operable.

With regard to claim 6, Lippett teaches digital communication is carried out under control of a controller and is conducted between at least one target device (see column 3, lines 38 – 47 where processing circuitry is interpreted as including controller).

Art Unit: 2637

With regard to claim 7, Lippett teaches start and clock signals are generated at 2<sup>nd</sup> device (see Table 2, Clock, and Figure 16A, 1600 where this is interpreted as equivalent).

With regard to claim 8, Lippett teaches 1<sup>st</sup> device is one of target devices (see Figure 5 and 8, slave devices).

With regard to claim 9, Lippett teaches that 1<sup>st</sup> device transmits a predetermined bit pattern in response to receipt of an instruction from 2<sup>nd</sup> device (see column 4, lines 60 – 67 where this is interpreted as equivalent).

With regard to claim 10, Lippett teaches a method of delaying the data (see figures 9 and 10, column 11, lines 1 – 8 where this is inclusive of ½ bit period). The selection of clock offset would be a design choice.

With regard to claim 12, Lippett teaches the method of claim 1 (steps 1 – 5). Lippett is silent with respect to the transmission of data in anticipation of arrival of start signal. The use of polling is a well-known data protocol technique. The transmission of data at a predicted time involves the simple use of timers. It would have obvious to one of ordinary skill in the art at the time of invention to transmit data at a known time instance, as this technique is well known in the art (TDMA).

With regard to claims 13 - 19, Lippett teaches a device incorporating the method of claims 1 – 10 as claimed above, and therefore would have been obvious considering the aforementioned rejection of claims 1 – 10.

With regard to claim 20, Lippett teaches a method of receiving from a transmit device a predetermined bit pattern (see figure 16A, 1602, 1604), sampling for bits of predetermined bit pattern a sampling times determined as a function of a delay period after a start signal (see column 9, lines 32 – 33), if predetermined bit pattern is not detected increasing delay period and repeating steps 1 & 2 (see column 9, lines 21 – 39), if predetermined bit pattern is

Art Unit: 2637

detected setting a last delay period used as delay period to be used for sampling data for further transmissions from transmit device (see figure 16B, 1620). Lippett is silent on sampling twice but does show an iterative technique, which is inclusive of 2 (see figure 16B, 1620). The choice of two sample points, therefore would be a design selection.

With regard to claim 21, Lippett teaches the method of claim 20 (steps 1 – 5). Lippett is silent with respect to the transmission of data in anticipation of arrival of start signal. The use of polling is a well-known data protocol technique. The transmission of data at a predicted time involves the simple use of timers. It would have obvious to one of ordinary skill in the art at the time of invention to transmit data at a known time instance, as this technique is well known in the art (TDMA).

With regard to claims 22 – 30, these method claims are analyzed in a similar manner to claims 2 – 10.

With regard to claims 31 - 37, Lippett teaches a device incorporating the method of claims 12, 22 – 29 as claimed above, and therefore would have been obvious considering the aforementioned rejection of claims 12, 22 – 29.

#### ***Other Cited Prior Art***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hoashi (US-5,548,732), Anderson (US-5,689,534), Doi (US-5,737,589), Lecourtier (US-6,516,040) all discloses techniques for the synchronization of data and clocks.

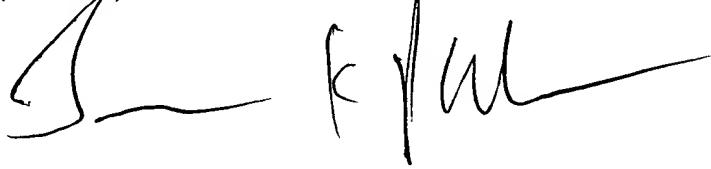
#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Meek whose telephone number is (571)272-3013. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMM

  
**JAY K. PATEL**  
**SUPERVISORY PATENT EXAMINER**